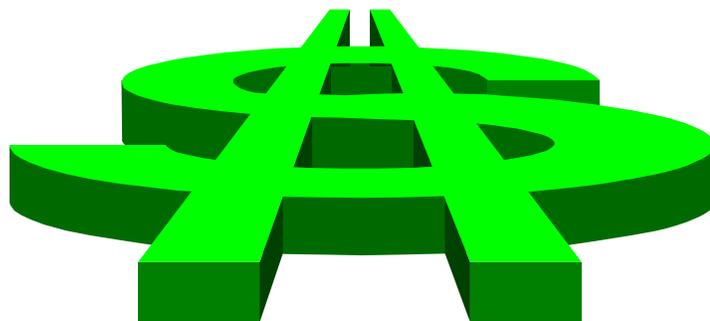


# **FUNDING OF TRANSPORTATION SYSTEMS**



# **FUNDING OF TRANSPORTATION SYSTEMS**

Transportation improvements, which are the responsibility of the Kentucky Transportation Cabinet, are funded in a variety of ways. This section of the *Statewide Transportation Plan* (STP) will define the major sources and amounts of funding that are projected to be available to implement transportation improvements. Funding sources and estimated amounts will be presented for the air, highway, and public transportation systems.

## FUNDING FOR AIR TRANSPORTATION IMPROVEMENTS

Funding for improvements to Kentucky's airports comes from two major sources: Kentucky's General Fund and the Federal Aviation Administration. The availability of Kentucky General Funds is based on the amount appropriated every two years in the Executive Budget, approved by the Kentucky Legislature. The average annual appropriation of General Funds available for airport use has been about \$1,500,000. These General Funds are used to match available federal funds and to provide for some state financed airport improvements. The major portion of airport capital costs is funded by Federal Aviation Administration (FAA) funds. There are two types of FAA funding available for airports in Kentucky: apportioned and discretionary. The availability of apportioned FAA funds is based on a formula, which is used to distribute funds to each state. A grant application process is used to distribute apportioned FAA funds to the airports in Kentucky. The availability of discretionary FAA funds is grant specific which means an application is made for discretionary FAA funds and Kentucky's airport improvements must compete with nationwide airport priorities.

House Bill 444 enacted in the 1998 session of the Kentucky General Assembly created the "Kentucky Aviation Economic Development Fund" which will utilize a portion of sales tax levied on the sale of jet fuels. This legislation goes into effect on July 1, 2000. Preliminary estimates for this fund are projected to range from \$6 to \$12 million. At this time the estimate for Fiscal Year 2000-2001 is \$11 million.

Annual airport improvement funding levels have been estimated based on historical funding information. The following annual funding levels are for STP purposes:

## AIR TRANSPORTATION FUNDING

Category	Assumed Annual Funding Level For FY 2005 – FY 2018	Special Considerations With Regard to these Fund Sources
General Funds (GF)	\$1.4 million	Used to match (5-10%) available federal funding and provide for some airport improvements.
Federal Aviation Administration (FAA) – Apportioned	\$4.0 million	Projects utilizing FAA funds must compete with other Kentucky airport priorities.
Federal Aviation Administration (FAA) – Discretionary	Project Specific	Projects utilizing discretionary FAA funds must compete with other nationwide airport priorities
Kentucky Aviation Economic Development Fund	\$6 to 12 million	Development projects

Since 1992, Kentucky has participated financially in over 100 capital improvement projects at 38 airports. About half of these included federal grant funds while the other half were state/local-funded projects. According to the 1998 Kentucky Aviation System Plan, Kentucky ranked 11th out of the 13 states evaluated in total dollars of funding in 1996 and tenth in a relationship of dollars expended per capita.

Kentucky is developing a Six Year Airport Capital Improvement Program at this time and is expected to be implemented for the first time in Fiscal Year 2001. This program will be compiled using the Kentucky Aviation System Plan and updated information submitted by the airports in Kentucky. Total annual funding for this program will consist of an estimated \$11 million from the Kentucky Aviation Economic Development Fund and the anticipated Kentucky General Fund appropriation of \$1.4 million. This total of \$12.4 million dollars will be divided as follows:

- \$550,000 – State Matching Funds for FAA projects
- \$950,000 – State Maintenance Projects for all Level I airports and contingency items
- \$7 million – Airport Preservation and Safety Projects
- \$3.9 million – Economic Development (expansion) Projects

Projects will be identified by category and will not exceed the funding amounts estimated for each fiscal year. As projects included in this program become eligible for federal funding or project costs are revised, the available funding will be revised accordingly. Projects will then be advanced as funding is available.

In addition to the above funding programs, a pilot project to provide air transportation services for a Warren County Industrial Park will be included in the Commonwealth's Fiscal Year 2000 budget request, as recommended in the KASP. The request proposes \$6 million to do feasibility, environmental, and site studies including the necessary studies for consideration of a new runway and related facilities at the Regional Industrial Site in Warren County. This proposed \$6 million is not included in the Airport Capital Improvement Program since it will be a pilot project. At the completion of this feasibility study, appropriate additional cost for

construction will be incorporated into the next update of the Six Year Airport Capital Improvement Program.

## FUNDING OF HIGHWAY TRANSPORTATION IMPROVEMENTS

In the earlier overview of Kentucky's highway system, it was stated that the relative importance of each highway segment is reflected in its functional classification - arterial, collector, or local. ISTEA of 1991 translated functional classification into the establishment of the National Highway System (NHS) which is composed of the Interstate Highway System and other selected arterials. ISTEA also related functional classification to federal funding category eligibility.

TEA-21 combines the continuation and improvements of current programs with new initiatives to meet the challenges of improving safety, protect and enhance communities and the environment, and advance America's economic growth. In a major change to federal budget rules, highway and transit programs are now guaranteed a minimum level of spending under TEA-21, effectively creating a spending floor and a minimum guarantee for each state of return on its contributions to the Highway Account of the Highway Trust Fund.

Funding for improvements to Kentucky's highways comes from two major sources - - Kentucky's Road Fund (State Funds) and the Federal Highway Trust Fund (Federal Funds). The available funding from Kentucky's Road Fund will be designated by three major categories:

### STATE FUNDS

- State Construction
- Parkway and State Primary Pavement Rehabilitation
- Resurfacing Program

The available funding from the Federal Highway Trust Fund for projects included in the Long-Range Plan – Highway Element will be designated in the following categories:

### FEDERAL FUNDS

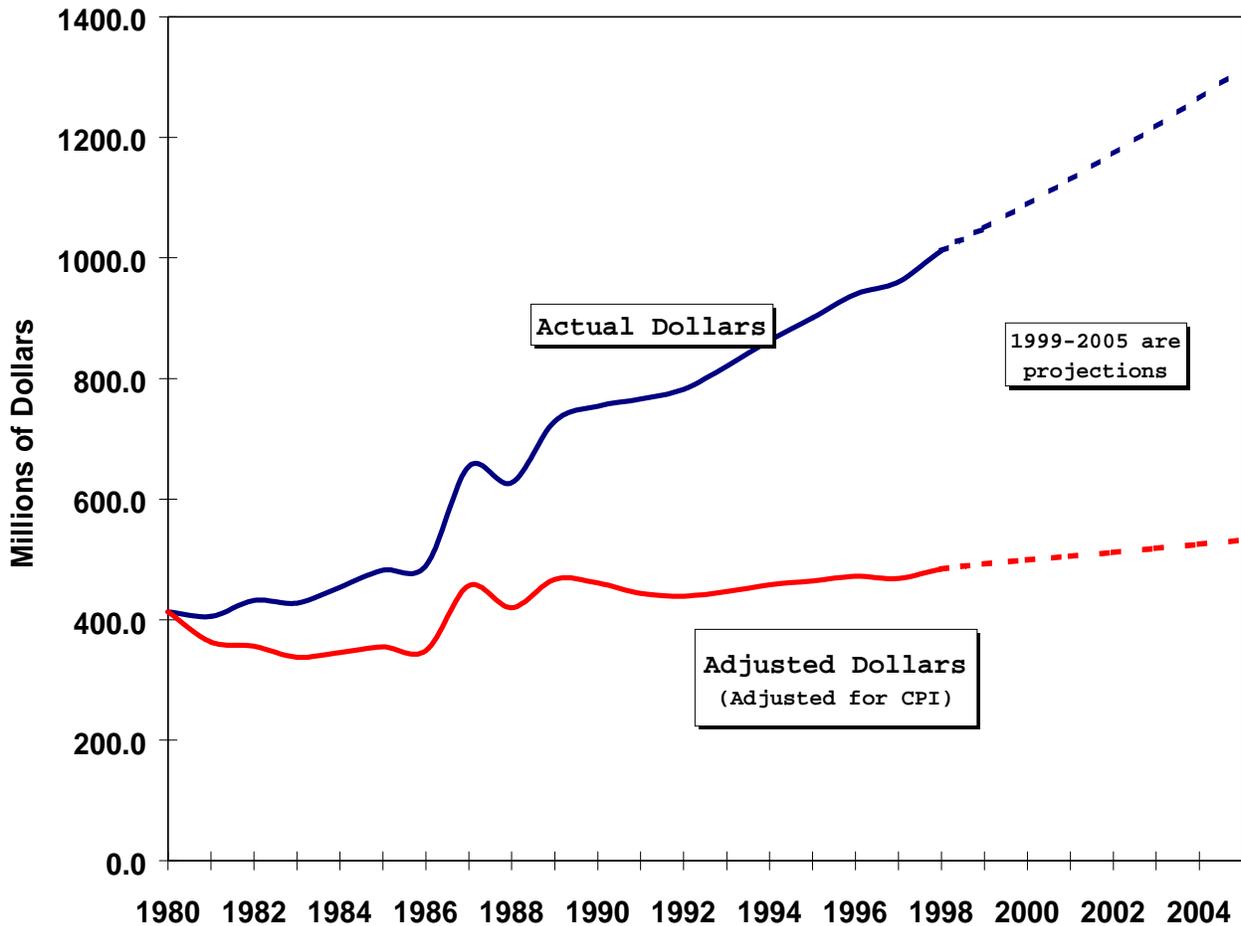
- National Highway System (NHS)
- Surface Transportation Program (STP)
- Appalachian Development (APD)
- Interstate Maintenance (IM)
- Bridge Replacement and Rehabilitation (BR)
- Transportation Enhancement (TE)

There are also other Federal Trust Fund categories which fund specific programs in the Commonwealth. However, these categories will be addressed specifically later in this section.

Kentucky's Road Fund (State Funds) has grown significantly over the years, but it is important to note that the construction prices and travel demands have also grown significantly. The Road Fund experienced a 131 percent increase in revenues during the period from FY 1981 to FY 1998. During the same period, however, the growth rate for dollars, when adjusted per the construction price index (CPI), was over 200 percent, as shown graphically in Figure 7.1.

**FIGURE 7.1**

## Kentucky Road Fund Revenue



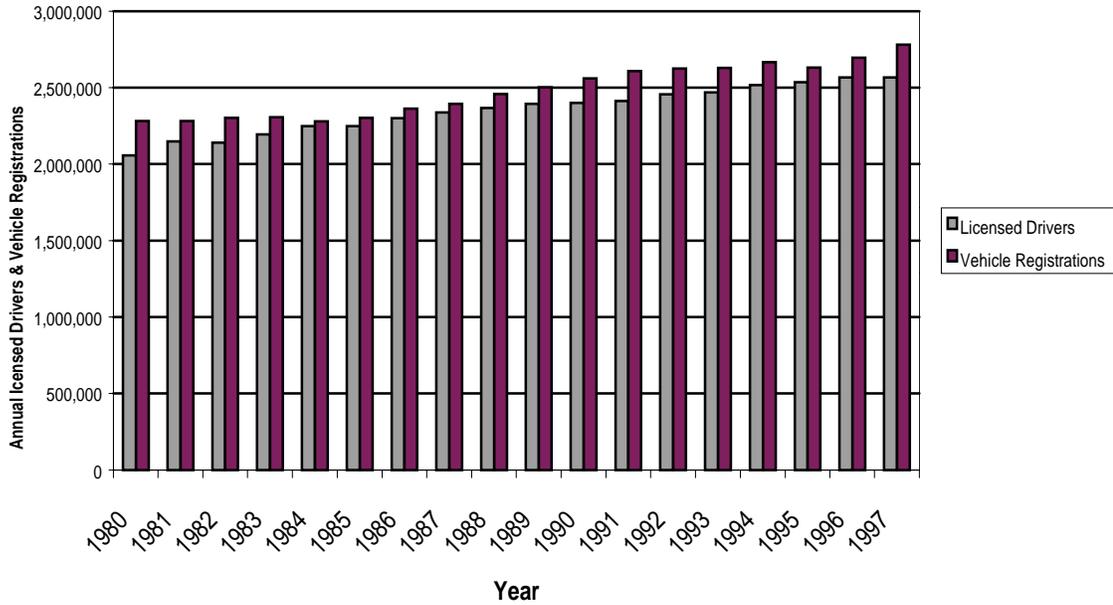
Source: Office of Policy and Budget, Kentucky Transportation Cabinet

Some of the fundamental sources of Road Fund revenue, such as the number of licensed drivers and vehicle registrations, have continued to increase consistently over the last fifteen years and are projected to continue this trend in the near future, as reflected in Figure 7.2.

**FIGURE 7.2**

Annual Licensed Drivers & Vehicle Registrations in Kentucky

1980-1997



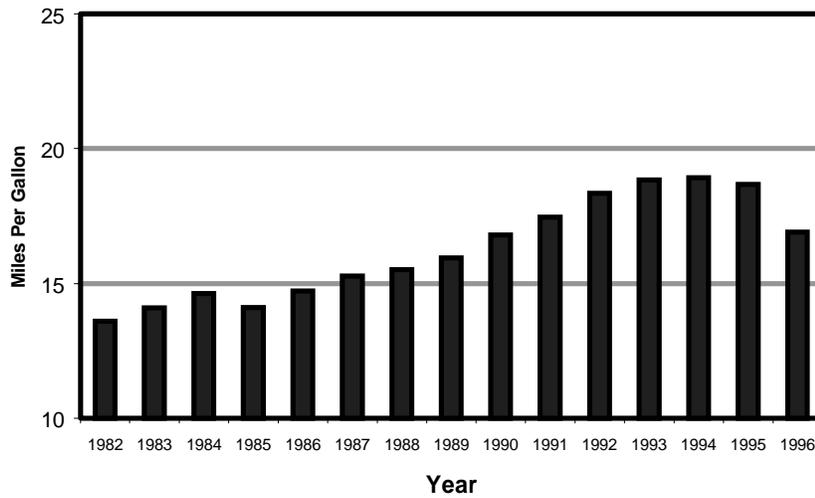
Source: Highway Statistics, 1997, Federal Highway Administration

The vehicle miles traveled have also followed the trend of increases seen in Kentucky's population, licensed drivers and vehicle registrations. However for funding purposes, it is important to note that vehicle fuel efficiency, while increasing steadily from 1985 through 1993, leveled out in 1994 and actually began to decline in 1995 and 1996 (Figure 7.3).

**FIGURE 7.3**

Vehicle Fuel Efficiency

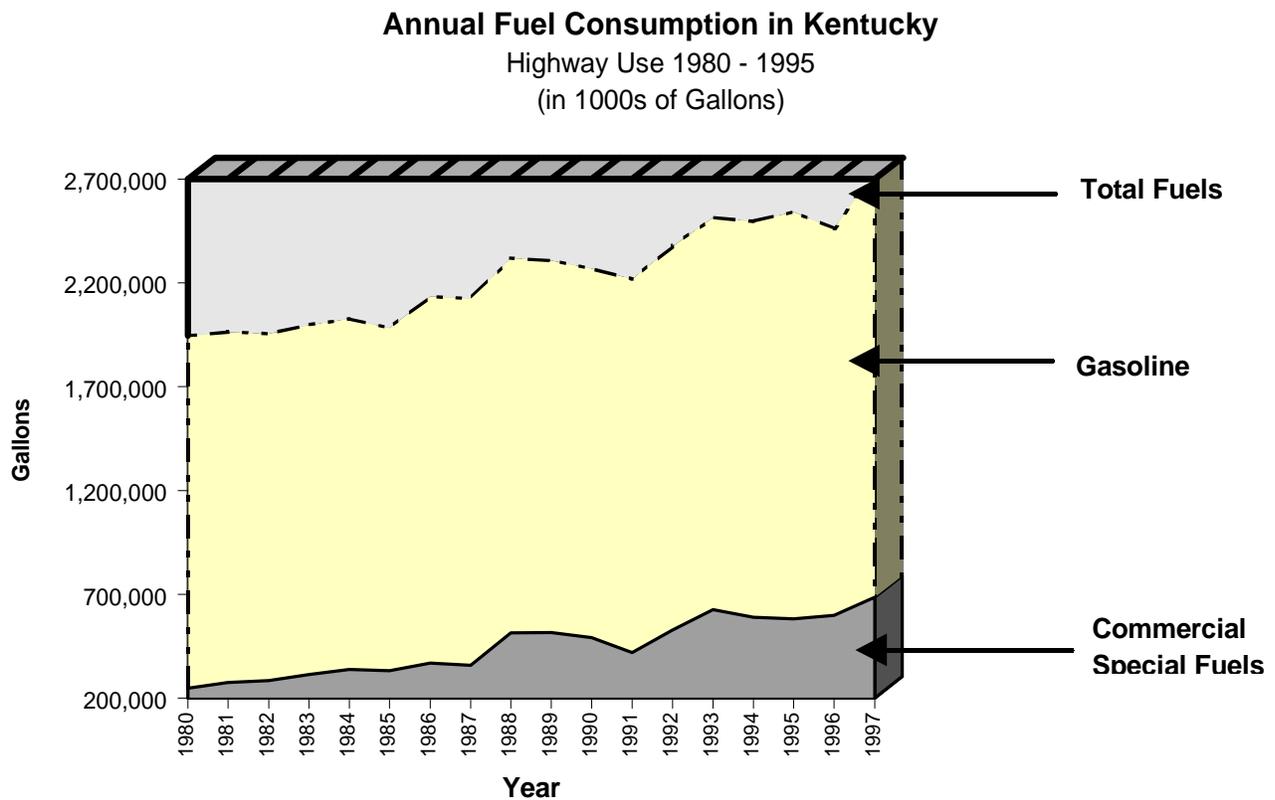
1982 through 1996



Source: Federal Highway Administration from "The Complete Car Cost Guide"

With the trend toward larger vehicles seen in recent years, it is unlikely that fuel efficiency will return to the pattern of the late 1980's. The data on annual fuel consumption in Kentucky for highway use reflects the combined effect of decreased fuel efficiency and increased vehicles and vehicle travel, as shown in Figure 7.4. The consumption of commercial special fuels has increased consistently, if only slightly, since 1981 while the consumption of gasoline has essentially remained flat since 1986.

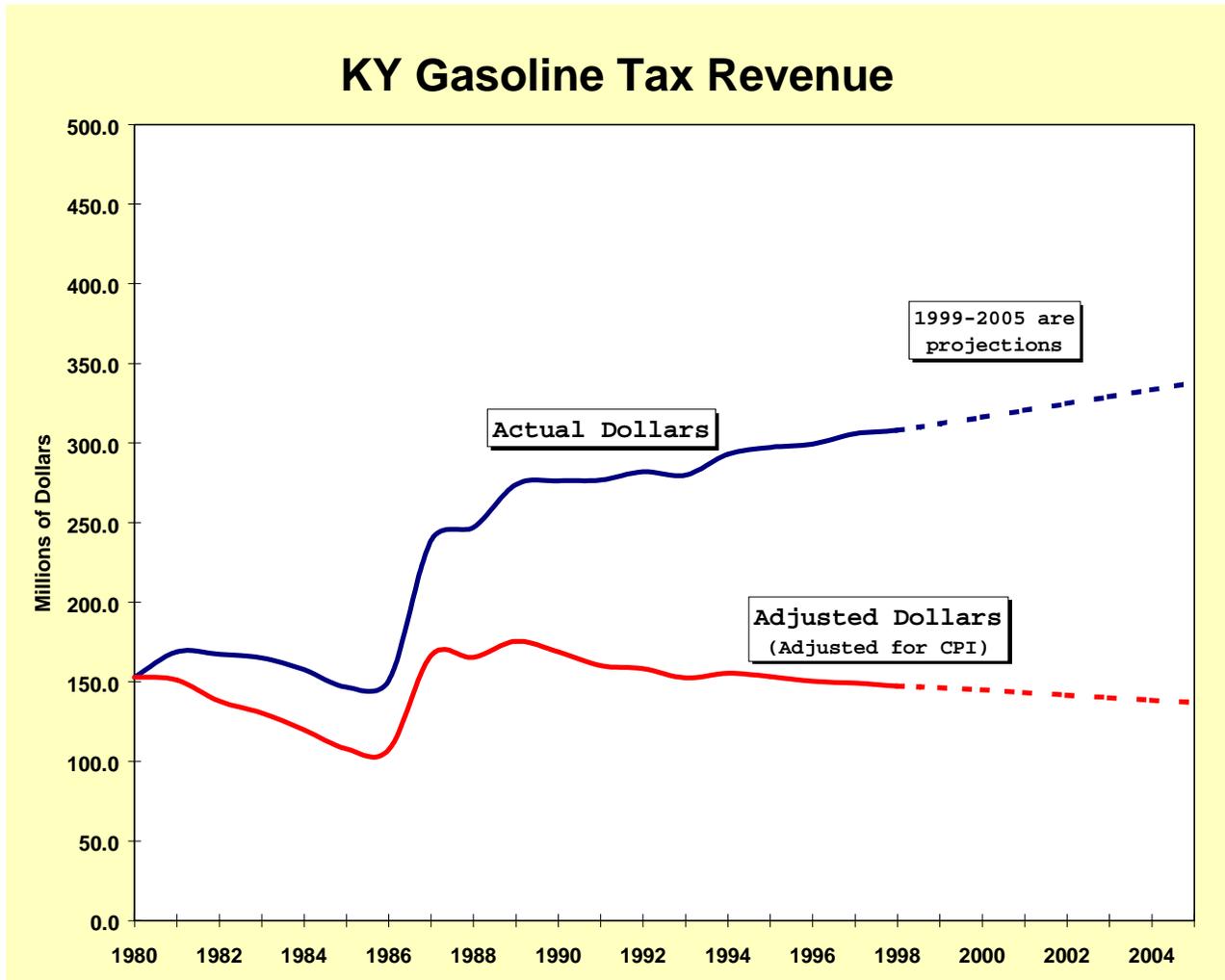
**FIGURE 7.4**



Source: Highway Statistics 1997, Federal Highway Administration

A comparison of the actual gasoline tax revenue with those same dollars adjusted for the consumer price index, indicates that gasoline tax revenues are not “flat.” They are actually declining in terms of expendable dollars as shown in Figure 7.5.

FIGURE 7.5



Source: Office of Policy and Budget, Kentucky Transportation Cabinet

Therefore, it is very apparent that the Road Fund has not, and will not be able to keep pace with the transportation needs of the future. Kentucky must utilize a comprehensive planning approach to determine the areas of greatest need, which will produce the greatest benefits for the Commonwealth as a whole.

The STP utilizes a 20-year planning horizon. The highway element of the STP is composed of:

- (1) A short-range element (Fiscal Year 1999-2004 Six Year Highway Plan) and,
- (2) A 14-year long-range element (Fiscal Year 2005-2018 Long-Range Highway Plan).

Annual funding levels for the Fiscal Years 1999-2004 Six Year Highway Plan are based on the estimated Fiscal Year 1999 levels of state and federal highway funding, based on the TEA-21 authorization levels.

The Six Year Highway Plan is a fiscally “balanced” list of highway improvements for which funding is expected to be available and against which projects are committed. Annual funding levels for the long-range plan have been estimated based on current funding information that is contained in state and federal legislation. The following annual funding levels for the Federal Highway Trust Fund categories include the state matching funds. These annual funding levels are for STP purposes:

<b>ESTIMATED ANNUAL FUNDING LEVELS STATEWIDE TRANSPORTATION PLAN FOR FY 2005 – FY 2018</b>		
<b>FUNDING SOURCE CATEGORY</b>	<b>ESTIMATED ANNUAL FUNDING LEVEL FOR FY 2005 – FY 2018</b>	<b>SPECIAL CONSIDERATIONS</b>
State Construction (SP)	\$175 million	This \$175 million is an estimate of the <u>State Road Funds</u> that are expected to be available for non-routine maintenance, state-funded improvement projects in future years.
Parkway and State Primary Pavement rehabilitation	\$50 million	This \$50 million projection is an estimate of the <u>State Road Funds</u> that are expected to be available for pavement rehabilitation projects in future years on the Parkways and State Primary Road System.
Federal Demonstration Funds (KYD)	\$40 million	This funding projection is an estimate of Federal funding set aside by Congress to address specific projects in specific areas.
National Highway System (NHS)	\$120.0 million	NHS funds are restricted to improvements on the National Highway System.
Surface Transportation Program (STP), Safety (SAF), Enhancement (TE), Congestion Mitigation and Air Quality (CMAQ), and dedicated urban funds.	\$215.0 million	Including safety, enhancement, congestion mitigation, and dedicated urban funding, the Six-Year Highway Plan Program assumed an annual STP (statewide) funding level at about \$215 million. <u>Since Kentucky is a “donor” state and this category is subject to growth due to “minimum guarantee” provisions in federal legislation,</u> a \$215 million annual funding level is recommended for use. STP (statewide) funds may not be used for improvements that are on a highway segment that is functionally classified as a rural minor collector or local road.
Appalachian Development (APD)	\$55 million	The status of this funding category is very uncertain as actual funding received may vary from zero to tens of millions of dollars per year. Actual funding availability will hinge entirely upon the continued viability of the Appalachian Regional Commission (ARC) and its programs. These funds can only be used on designated APD routes in Eastern Kentucky.
Interstate Maintenance (IM)	\$100.0 million	This \$100 million projection is an estimate of the Federal Highway Trust Funds that are expected to be available for maintaining and rehabilitating Kentucky’s Interstate highways.
Bridge Replacement and Rehabilitation (BR)	\$55.0 million	This projection is an estimate of the Federal Highway Trust Funds that are expected to be available for replacing and rehabilitating Kentucky’s functionally obsolete and structurally deficient bridges. These funds may be used, within certain limits, on locally as well as state-maintained bridges.

Based on these estimated annual funding levels, the total projected amounts of state and federal funding available for implementation of all highway improvements for the FY 2005 - FY 2018 time period are as follows:

STATE FUNDS:

State Construction (SP)*	\$ 2.45 billion
Parkway and State Primary Pavement Rehabilitation (SPPR)	\$.70 billion
Total – State Road Funds	\$3.15 billion

FEDERAL HIGHWAY TRUST FUNDS:

National Highway System (NHS)*	\$1.68 billion
Surface Transportation Program (STP)*	\$3.01 billion
Appalachian Development (APD)*	\$0.77 billion
Interstate Maintenance (IM)	\$1.40 billion
Bridge Replacement and Rehabilitation (BR)	\$0.77 billion
Federal Demonstration (KYD)	\$0.56 billion
Total – Federal Highway Trust Funds	\$8.19 billion

TOTAL – ALL FUNDS \$11.34 billion

*\*The projects to be funded by these funding categories will be identified in the Presentation of Planned Transportation Improvements under the Highway Element of the Long-Range Plan.*

The list of highway improvements (Long-Range Highway Element) in the "Presentation of Planned Transportation Improvements" section of this STP has been developed with due consideration given to these funding constraints. The improvements which are expected to use "State Construction", "National Highway System", "Surface Transportation Program", or "Appalachian Development" funds are listed individually as specific projects in the Presentation of Planned Transportation Improvements section (\*).

Improvements expected to use "Parkway and State Primary Pavement Rehabilitation", "Resurfacing Program", "Interstate Maintenance", or "Bridge Replacement and Rehabilitation" funds are not individually identified as projects in this document, since these improvements are

considered to be major maintenance and operational improvements and not specific individual projects. Therefore, one general entry has been estimated for each of these four categories of funding.

The total of estimated costs for all improvement projects specifically listed in the Long-Range Highway Element, for the fourteen year period from FY 2005 through FY 2018, is almost \$6.2 billion compared to the total of projected funding needs for all projects identified to date of approximately \$40 billion.

As mentioned in the beginning of this section, there are other categories of federal highway funds that are available; however, these categories were not defined as sources for long-range highway improvements or included in the presentation of projects because they are used for specific activities or functions. Of the \$810 million (total projected funds available annually), only \$438 million will be available for funding highway projects in the Long-Range Highway Plan, as illustrated in Figure 7.6

These funding categories not available for Long-Range Plan Highway Improvement Projects and their purposes are as follows:

- Surface Transportation Program (Dedicated) -- These funds will be used by the metropolitan governments to implement highway improvements located in the Lexington, Louisville, and Northern Kentucky metropolitan areas. The Long-Range Plans for these areas have been incorporated into this document by reference.
- Congestion Mitigation and Air Quality -- These funds will be used to implement improvements which will reduce traffic-related pollutants and improve air quality in the metropolitan areas of Louisville, Lexington, Northern Kentucky, Owensboro and Ashland. Selection of these projects will be coordinated with the U.S. Environmental Protection Agency (EPA) and the air quality agencies in Kentucky.
- Transportation Enhancement -- These funds will be used to enhance community or environmental value of any active or completed transportation project. There is an existing, separate application process for these funds. The list of Enhancement Projects approved for 1999 however is included in this document under the Short-Range Element in the "Presentation of Planned Improvements Section".

Figure 7.6 summarizes the projected highway funds for Kentucky and compares the total projected funding to total estimated project costs of the Long-Range Highway Element, as included in this document.

**FIGURE 7.6**

<b>MAJOR SOURCES OF PROJECTED HIGHWAY IMPROVEMENT FUNDS</b>		
<b>FY 2005 – FY 2018</b>		
FUNDING	ANNUAL PROJECTION	14-YEAR PROJECTION
State Construction	\$175 million	\$ 2.45 billion
Parkway & State Primary Pavement Rehabilitation	\$ 50 million	\$ 0.70 billion
Federal Demonstration Funds	\$ 40 million	\$ 0.56 billion
National Highway System	\$120 million	\$ 1.68 billion
Surface Transportation Program	\$215 million	\$ 3.01 billion
Appalachian Development	\$ 55 million	\$ 0.77 billion
Interstate Maintenance	\$100 million	\$ 1.40 billion
Bridge Replacement and Rehabilitation	\$ 55 million	\$ 0.77 billion
<b>TOTAL PROJECTED FUNDING</b>	<b>\$810 million</b>	<b>\$11.34 billion</b>
Less:		
▪ Major Maintenance & Operation Improvements (on existing system)	\$252 million	\$ 3.53 billion
▪ Major System Upgrades – 3 Metropolitan Areas (Louisville, Lexington, Northern Kentucky)	\$120 million	\$ 1.68 billion
<b>Total Estimated Funds Available for the Long-Range Plan Element</b>	<b>\$438 million</b>	<b>\$ 6.13 billion</b>
<b>Total Estimated Project Costs of the Long-Range Plan Element Listed in this Statewide Transportation Plan</b>	<b>\$443 million</b>	<b>\$ 6.20 billion</b>

As shown above, of the \$810 million (total projected funds available annually), \$252 million will be directed toward Existing System Major Maintenance and Operational Improvements including: Transportation Enhancement Projects, Multimodal Opportunities, Existing System Maintenance, and Safety Improvements; \$ 120 million will be directed toward Major System Upgrades for the metropolitan areas of Louisville, Lexington and Northern Kentucky, whose projects are not specifically included by project listing in this document, but are included by reference to their Long-Range Plan; and \$438 million will be directed toward Major System Upgrades including: New Routes and Bypasses, Existing Route Capacity Expansion, Major Route Reconstruction or Relocation and Enhancing Intermodal Connectivity for the total statewide regions, including urban areas of less than 200,000 population, excluding those metropolitan areas listed above. Figure 7.7 illustrates the process of this fund distribution.

INSERT FIGURE 7.7

The specific highway improvement projects for the latter category of Major System Upgrades (non-Metropolitan areas in less than 200,000 population) are included in this plan within the Presentation of Planned Transportation Improvements Section under the Long-Range Improvements - Highway Element.

**FUNDING OF PUBLIC TRANSPORTATION IMPROVEMENTS**

In the earlier overview of Kentucky's public transportation system, five components and their corresponding services were identified: (1) intercity and interstate buses which move passengers and freight, (2) rural public transportation vehicles which move passengers in the rural areas of the state, (3) public transportation vehicles for the elderly and disabled which meet the special needs of their users, (4) bus/transit systems in the cities which provide scheduled passenger service, and (5) transit planning in metropolitan areas. The Kentucky Transportation Cabinet administers funding, to some extent, for each of these components.

Funding for the operation and improvement of Kentucky's public transportation system comes from two major sources: Kentucky's General Fund and the Mass Transit Account in the Federal Highway Trust Fund. The availability of Kentucky General Funds is based on the amount appropriated every two years in the executive budget. The average annual amount of General Funds appropriated for public transportation use has been about \$1,500,000. These General Funds are used mainly to match available federal funds. The major portion of operating and capital costs are funded by Federal Transit Administration (FTA) funds. There are two types of FTA funding available for public transportation in Kentucky: apportioned and discretionary. The availability of apportioned FTA funds is based on a formula that is used to distribute funds to each state. The Transportation Cabinet uses a grant application process to distribute apportioned FTA funds to the public transportation service providers in Kentucky. The availability of discretionary FTA funds is grant specific, which means an application, is made for discretionary FTA funds and Kentucky's public transportation improvements must compete with nationwide public transportation priorities.

Annual public transportation system funding levels have been estimated based on historical funding information. The following annual funding levels are for STP purposes:

Category	Assumed Annual Funding Level for FY 2001-FY 2018	Special Considerations
General Funds (GF)	\$1,500,000	Used mainly to match available federal funding.
Federal Transit Administration (FTA) – Apportioned	\$6,000,000	Projects utilizing apportioned FTA funds must compete with other Kentucky public transportation priorities.
Federal Transit Administration (FTA) – Discretionary	\$4,000,000 Project Specific	Projects utilizing discretionary FTA funds must compete with other nationwide public transportation priorities.

The list of public transportation improvements in the "Presentation of Planned Transportation Improvements" section of this *Statewide Transportation Plan* has been developed with due consideration given to the funding constraints.